

REMARKS

Claims 1-15 are all the claims pending in the application.

Applicants note that a number of editorial amendments have been made to the specification for grammatical and general readability purposes. No new matter has been added.

I. Claim Rejections under 35 U.S.C. § 102

The Examiner has rejected claims 1, 4, 5 and 12-15 under 35 U.S.C. § 102(b) as being anticipated by Lind (U.S. 3,541,451).

Claim 1 recites the feature of a control circuit that is operable to control an output of a signal generator and a capacitance of a variable capacitor. Applicants respectfully submit that Lind does not disclose or suggest at least this feature of claim 1.

Regarding Lind, Applicants note that this reference discloses an FM receiver circuit that includes a variable center frequency filter 14 disposed between a mixer stage and an intermediate frequency amplifier stage (see col. 2, lines 6-9). As shown in Figs. 1a and 1b of Lind, the mixer stage includes an RF amplifier 11, a local oscillator 13, and a mixer 12; the filter 14 includes a pair of voltage sensitive capacitors 37 and 45; and the IF amplifier stage includes an IF amplifier 15 and a demodulator 17 (see col. 3, lines 36-49).

As shown in Fig. 1b of Lind, an automatic gain control (AGC) bus 23 is connected to the IF amplifier 15, and the output of the demodulator 17 is connected to an automatic frequency control (AFC) bus 20.

As explained in Lind, the AGC bus 23 supplies AGC signals to the RF amplifier 11, to the mixer 12 and to the variable center frequency filter 14 (see col. 3, lines 4-8). Regarding the AFC bus 20, Lind explains that the center frequency of the variable center frequency filter 14 is determined by a signal that is output from a demodulator 17 on the AFC bus 20 to the voltage

sensitive capacitors 37 and 45, wherein the center frequency of the variable center frequency filter 14 is set at the center of the intermediate frequency signal being provided by the mixer 12 (see col. 2, lines 14-18 and col. 3, lines 62-65).

In the Office Action, the Examiner recognizes that Lind does not disclose a control circuit that is operable to control an output amplitude of the signal generator and a capacitance of the variable capacitor. The Examiner, however, indicates that a “control circuit” is inherently present in Lind in order to form the signals that are transmitted on the AFC bus 20 and the AGC bus 23. Applicants respectfully disagree.

In particular, contrary to the Examiner’s position, Applicants respectfully submit that a control circuit for controlling an output amplitude of the mixer 12 and a capacitance of the variable capacitors 37 and 45 is not inherent to Lind. Instead, Applicants submit that the gain of the mixer 12 of Lind is controlled by the signal supplied on the AGC bus 23, and that the variable capacitors 37 and 45 in the filter 14 of Lind are controlled by the signal supplied from the AFC bus 20.

As noted in the MPEP § 2112, to establish inherency, the extrinsic evidence “must make clear that the missing descriptive matter is necessarily present in the thing described in the reference, and that it would be so recognized by persons of ordinary skill.” As further explained in MPEP § 2112, inherency may not be established by probabilities or possibilities, and the mere fact that a certain thing may result from a given set of circumstances is not sufficient to establish inherency.

In view of the foregoing, if the Examiner maintains the position that a control circuit for the AFC bus 20 and the AGC bus 23 is inherent to Lind, Applicants respectfully request the

Examiner to cite a supporting reference as factual extrinsic evidence that such a control circuit must necessarily be present.

Regarding claims 4, 5 and 12-15, Applicants note that these claims depend from claim 1 and are therefore considered patentable at least by virtue of their dependency.

II. Claim Rejections under 35 U.S.C. § 103(a)

A. The Examiner has rejected claims 2, 3, 6 and 7 under 35 U.S.C. § 103(a) as being unpatentable over Lind (U.S. 3,541,451). Claims 2, 3, 6 and 7 depend from claim 1. As noted above, Applicants respectfully submit that Lind does not disclose, suggest or otherwise render obvious all of the features recited in claim 1. Accordingly, Applicants submit that claims 2, 3, 6 and 7 are patentable at least by virtue of their dependency.

B. The Examiner has rejected claim 8 under 35 U.S.C. § 103(a) as being unpatentable over Lind in view of El-Hamamsy (U.S. 5,463,285). Claim 8 depends from claim 1. Applicants respectfully submit that El-Hamamsy does not cure the deficiencies of Lind, as discussed above, with respect to claim 1. Accordingly, Applicants submit that claim 8 is patentable at least by virtue of its dependency.

C. The Examiner has rejected claim 9 under 35 U.S.C. § 103(a) as being unpatentable over Lind in view of Shenai (U.S. 5,914,513). Claim 9 depends from claim 1. Applicants respectfully submit that Shenai does not cure the deficiencies of Lind, as discussed above, with respect to claim 1. Accordingly, Applicants submit that claim 9 is patentable at least by virtue of its dependency.

D. The Examiner has rejected claim 10 under 35 U.S.C. § 103(a) as being unpatentable over Lind in view of JP 06-170368. Claim 10 depends from claim 1. Applicants respectfully submit that JP 06-710368 does not cure the deficiencies of Lind, as discussed above, with respect to claim 1. Accordingly, Applicants submit that claim 10 is patentable at least by virtue of its dependency.

E. The Examiner has rejected claim 11 under 35 U.S.C. § 103(a) as being unpatentable over Lind in view of Ogawa (U.S. 4,758,794). Claim 11 depends from claim 1. Applicants respectfully submit that Ogawa does not cure the deficiencies of Lind, as discussed above, with respect to claim 1. Accordingly, Applicants submit that claim 11 is patentable at least by virtue of its dependency.

III. Conclusion

In view of the above, reconsideration and allowance of this application are now believed to be in order, and such actions are hereby solicited. If any points remain in issue which the Examiner feels may best be resolved through a personal or telephone interview, the Examiner is kindly requested to contact the undersigned at the telephone number listed below.

Respectfully submitted,

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